

**Amendments to the Claims**

1. (Original) A method of embossing a cured silicone resin thermoset substrate to imprint patterns onto the substrate from a master mold comprising:

- (i) stacking a master mold with a cured silicone resin thermoset substrate such that the surface of the master mold containing a feature is facing the silicone resin substrate;
- (ii) applying pressure to the product of (i) in a press at a temperature slightly higher than the T<sub>g</sub> of the silicone resin but lower than the softening point of the master mold;
- (iii) cooling the product of (ii) and maintaining the pressure on the mold; and
- (iv) releasing the substrate whereby the feature is imprinted on the silicone resin substrate.

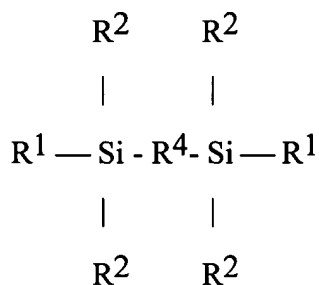
2. (Original) A method according to Claim 1, wherein the substrate is in the form of a film, plaque, or coating.

3. (Currently amended) A method according to Claims 1 ~~or 2~~, wherein the toughened silicone resin thermoset substrates have a glass transition temperatures from 50 °C to 120°C.

4. (Currently amended) A method according to Claims 1, ~~2, or 3~~ wherein the pressure is at or above 1 metric ton.

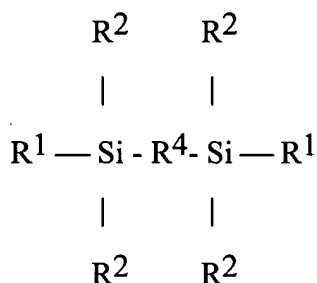
5. (Currently amended) A method according to Claims 1, ~~2, 3, or 4~~, wherein the master mold is selected from silicon wafers, silicon carbide, silicon nitride, aluminum, stainless steel, nickel, alloys, and metal oxides.

6. (Currently amended) A method according to Claims 1, ~~2, 3, 4, or 5~~ wherein the cured silicone resin thermoset substrate is a composition obtained by a method comprising (1) copolymerizing a combination comprising components (A) and (B) wherein component (A) is a hydrolyzate of a hydrolysis precursor wherein the hydrolysis precursor comprises (i) organotrialkoxysilanes or organotrihalosilanes and (ii) a monofunctional silane selected from triorganomonoalkoxysilanes, triorganomonohalosilanes, disiloxanes, and disilazanes and component (B) is a silyl-terminated hydrocarbon having the formula:



wherein each  $\text{R}^1$  is independently selected from a halogen atom, a hydroxyl group, an alkoxy group, an oximo group, an alkyloximo group, an aryloximo group, an alkylcarboxyl group, and an arylcarboxyl group, each  $\text{R}^2$  is independently selected from alkyl and aryl groups, and  $\text{R}^4$  is a divalent hydrocarbon group.

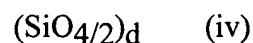
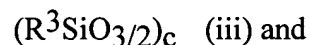
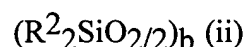
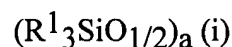
7. (Currently amended) A method according to Claims 1, ~~2, 3, 4, or 5~~ wherein the cured silicone resin thermoset substrate is a composition comprising: (A') a silsesquioxane copolymer comprising units that have the empirical formula  $R^1_a R^2_b R^3_c SiO_{(4-a-b-c)/2}$ , wherein a is zero or a positive number, b is zero or a positive number, c is zero or a positive number, with the provisos that  $0.8 \leq (a + b + c) \leq 3.0$  and component (A') has an average of at least two  $R^1$  groups per molecule, each  $R^1$  is a functional group independently selected from the group consisting of hydrogen atoms and monovalent hydrocarbon groups having aliphatic unsaturation, each  $R^2$  is a monovalent hydrocarbon group selected from nonfunctional groups and  $R^1$ , each  $R^3$  is a monovalent hydrocarbon group selected from nonfunctional groups and  $R^1$ ; (B') a silyl-terminated hydrocarbon having the general formula



where  $R^1$  and  $R^2$  are as described above for component (A'), with the provisos that when  $R^1$  in component (A') is a hydrogen atom,  $R^1$  in component (B') is an unsaturated monovalent hydrocarbon group and when  $R^1$  in component (A') is an unsaturated monovalent hydrocarbon group,  $R^1$  in component (B') is a hydrogen atom, and  $R^4$  is a divalent hydrocarbon group; and (C') a hydrosilylation reaction catalyst.

8. (Currently amended) A method according to Claims 1, ~~2, 3, 4, or 5~~ wherein the cured silicone resin thermoset substrate is a polysiloxane film comprising a silicone resin obtained by a method comprising reacting (A'') a silicone resin represented by the average formula  $R^1_aSiO_{(4-a)/2}$  wherein  $R^1$  is independently a monovalent hydrocarbon radical having from 1 to 10 carbon atoms, and a is integer of from 0 to 2 (both exclusive)) and having at least two unsaturated aliphatic hydrocarbon radicals in its molecule, (B'') an organosilicon compound having at least two silicon-bonded hydrogen atoms in its molecule, in the presence of (C'') a platinum catalyst.

9. (Original) A method according to Claim 8, wherein Component (A'') is a silicone resin comprising units



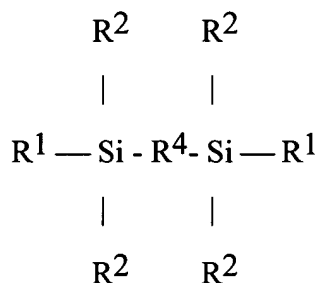
wherein  $R^1$  and  $R^2$  are each independently selected from monovalent hydrocarbon radicals having from 1 to 10 carbon atoms and unsaturated aliphatic hydrocarbon radicals,  $R^3$  is an alkyl group having from 1 to 8 carbon atoms or an aryl group, a has a value of zero or greater than zero, b has a value of zero or greater than zero, c has a value of zero or greater than zero, d has a value of zero or greater than zero, with the provisos that the value of  $c + d$  is greater than zero, the value of  $a + b + c + d = 1$ , and that are at least two silicon-bonded unsaturated aliphatic hydrocarbon atoms present in the silicone resin.

10. (Currently amended) A method according to Claims 8 ~~or 9~~ wherein Component (B'') is p-bis(dimethylsilyl) benzene.

11. (New) A method according to Claim 3, wherein the pressure is at or above 1 metric ton.

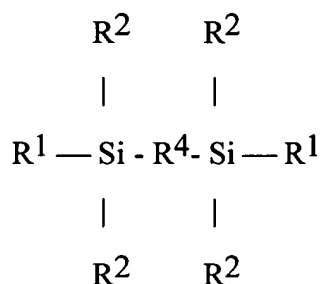
12. (New) A method according to Claim 11, wherein the master mold is selected from silicon wafers, silicon carbide, silicon nitride, aluminum, stainless steel, nickel, alloys, and metal oxides.

13. (New) A method according to Claim 12, wherein the cured silicone resin thermoset substrate is a composition obtained by a method comprising (1) copolymerizing a combination comprising components (A) and (B) wherein component (A) is a hydrolyzate of a hydrolysis precursor wherein the hydrolysis precursor comprises (i) organotrialkoxysilanes or organotrihalosilanes and (ii) a monofunctional silane selected from triorganomonoalkoxysilanes, triorganomonohalosilanes, disiloxanes, and disilazanes and component (B) is a silyl-terminated hydrocarbon having the formula:



wherein each  $\text{R}^1$  is independently selected from a halogen atom, a hydroxyl group, an alkoxy group, an oximo group, an alkyloximo group, an aryloximo group, an alkylcarboxyl group, and an arylcarboxyl group, each  $\text{R}^2$  is independently selected from alkyl and aryl groups, and  $\text{R}^4$  is a divalent hydrocarbon group.

14. (New) A method according to Claim 12, wherein the cured silicone resin thermoset substrate is a composition comprising: (A') a silsesquioxane copolymer comprising units that have the empirical formula  $R^1_a R^2_b R^3_c SiO_{(4-a-b-c)/2}$ , wherein a is zero or a positive number, b is zero or a positive number, c is zero or a positive number, with the provisos that  $0.8 \leq (a + b + c) \leq 3.0$  and component (A') has an average of at least two  $R^1$  groups per molecule, each  $R^1$  is a functional group independently selected from the group consisting of hydrogen atoms and monovalent hydrocarbon groups having aliphatic unsaturation, each  $R^2$  is a monovalent hydrocarbon group selected from nonfunctional groups and  $R^1$ , each  $R^3$  is a monovalent hydrocarbon group selected from nonfunctional groups and  $R^1$ ; (B') a silyl-terminated hydrocarbon having the general formula



where  $R^1$  and  $R^2$  are as described above for component (A'), with the provisos that when  $R^1$  in component (A') is a hydrogen atom,  $R^1$  in component (B') is an unsaturated monovalent hydrocarbon group and when  $R^1$  in component (A') is an unsaturated monovalent hydrocarbon group,  $R^1$  in component (B') is a hydrogen atom, and  $R^4$  is a divalent hydrocarbon group; and (C') a hydrosilylation reaction catalyst.

15. (New) A method according to Claim 12, wherein the cured silicone resin thermoset substrate is a polysiloxane film comprising a silicone resin obtained by a method comprising reacting (A'') a silicone resin represented by the average formula  $R^1_aSiO_{(4-a)/2}$  wherein  $R^1$  is independently a monovalent hydrocarbon radical having from 1 to 10 carbon atoms, and a is integer of from 0 to 2 (both exclusive)) and having at least two unsaturated aliphatic hydrocarbon radicals in its molecule, (B'') an organosilicon compound having at least two silicon-bonded hydrogen atoms in its molecule, in the presence of (C'') a platinum catalyst.

16. (New) A method according to Claim 15 wherein Component (B'') is p-bis(dimethylsilyl) benzene.

17. (New) A product produced in accordance with the method of Claim 1.

18. (New) A product produced in accordance with the method of Claim 14.

19. (New) A product produced in accordance with the method of Claim 15.

20. (New) A product produced in accordance with the method of Claim 16.